

Customer No.: 31561
Docket No.: 12468-US-PA
Application No.: 10/709,036

AMENDMENT

In The Claims

1. (currently amended) A laser annealing apparatus, used to perform a laser annealing process for annealing an amorphous silicon thin film, comprising:

a laser-generating module, used to provide a laser beam to anneal the amorphous silicon thin film to form a polysilicon thin film;

a resistance-measurement module, used to measure a sheet resistance of the polysilicon thin film for obtaining a sheet resistance value while the laser beam is simultaneously annealing the amorphous silicon thin film; and

a host circuit module, electrically coupled to and between the laser-generating module and the resistance-measurement module, the host circuit module, according to the sheet resistance value, outputting a feedback signal to the laser-generating module, for optimizing an energy density of the laser beam.

2. (previously presented) The laser annealing apparatus of claim 1, further comprising a supporting module, wherein the supporting module is moveably located between the laser-generating module and the resistance-measurement module, used to support the amorphous silicon thin film, and electrically coupled to the host circuit module.

3. (original) The laser annealing apparatus of claim 1, wherein the laser-generating module comprises:

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a laser beam source; and
a control circuit, electrically coupled to and between the laser beam source and the host circuit module.

4. (original) The laser annealing apparatus of claim 3, wherein the laser beam source comprises an excimer laser.

5. (original) The laser annealing apparatus of claim 1, wherein the resistance-measurement module comprises:

a measurement terminal; and
an output circuit, electrically coupled to and between the measurement terminal and the host circuit module.

6. (original) The laser annealing apparatus of claim 5, wherein the measurement terminal comprises a probe set.

7. (previously presented) The laser annealing apparatus of claim 1, wherein the host circuit module is installed in a database, and the host circuit module is used to compare the sheet resistance with a plurality of referential resistance values stored in the database for generating the feedback signal.

8-11. (canceled)